

ABSTRACT OF THE DISCLOSURE

A corneal surgery apparatus for correcting a refractive error by ablating corneal tissue with a laser beam, which is capable of finding a pattern of correction optimum for a patient so as to ensure precise correction, and a method of determining correction data. The corneal surgery apparatus is provided with input means for inputting refractive power data on a contact lens used on a trial basis, calculation means for converting the refractive power data to obtain ablation data, control means for controlling an ablation amount of the corneal tissue based on the ablation data, storage means for storing the refractive power data in correspondence with each contact lens, and revising means for revising the refractive power data on the contact lens. The correction data determining method includes a process for obtaining a value of correction made with a contact lens based on a result of an ophthalmic examination, a process for selecting a contact lens for trial use based on the obtained values, and a process for converting the refractive power data on the selected contact lens into the ablation data for correcting the refractive error if the trial use of the contact lens bears a good result.